APPENDIX D. Site Conditions: Technical Issues

1. **Utilities.** All utility services from both public (BWSC) and private systems for the Air Rights project shall enter the building from PA444 either directly from existing systems located there or via PA444 from systems located in Hereford Street. Utility services will not be directly taken from systems supported on either the Boylston Street bridge or the Massachusetts Avenue bridge. All utility services from both public(BWSC) and private systems for the Air Rights project shall enter the building from PA444 either directly from existing systems located there or via PA444 from systems located in Hereford Street. Utility services will not be directly taken from systems supported on either the Boylston Street bridge or the Massachusetts Avenue bridge. All power and communications services for the Station shall be obtained from the MBTA's systems.

    a. Potential storm drain service connections may be found on Hereford Street and Boylston Street.

    b. All power and communications services for the Station shall be obtained from the MBTA's systems.

2. **Alignment and Clearances.** The clearance to the roadway surface must be maintained at 14'-6" (Min.) The travel land widths will be maintained equivalent to the existing upon Project completion. Development must allow for future bridge deck maintenance, repair and other structure replacement by MassDOT.

3. **Structural Conditions and Highway Systems.** Various Turnpike, and MBTA structures and systems serving various ventilation, electrical, and communications requirements are located on or pass through the Parcel and all must be protected during construction and in good working order upon Project completion.

    The structural systems evaluated in the feasibility study required to support air-rights development over the Turnpike and Green Line tunnel are similar in all alternatives. The support structures are divided into three zones. Zone 1 extends from Massachusetts Avenue eastward to an expansion joint running perpendicular across the Turnpike just east of the transformer yard behind the traction power substation. Zone 1 is the most structurally challenging area and has the smallest capacity for air-rights development: roughly up to five stories. Zone 2 extends from the expansion joint eastward to the west side of the proposed Boylston Street headhouse. The capacity is somewhat higher here, up to ten stories can be accommodated. Zone 3 is principally over the Green Line tunnel and has the most solid ground for foundations and therefore the loading capacity will accommodate fifteen stories or more.

    Caissons (or mini-piles) will be drilled along the shoulder of the Turnpike adjacent to 360 Newbury Street and in the Turnpike median to provide support for Zone 1. Larger caissons will be drilled in the area currently occupied by the [unit] substation, along the existing service road, and on the north side of the Green Line tunnel. Groups of caissons in these areas will be connected with pile caps to provide lateral stability.

    a. Modifications to Existing Boylston Street Bridge Structure

        While the goals of the Feasibility Study included minimizing impacts to the existing Boylston Street bridge structure, a number of modifications are potentially required. At selected locations the existing foundation and column cap may need to be reconstructed to create sleeves for building supports that are independent of the bridge structure. If the selected design does not call for significant new loads along the back of sidewalk along Boylston St., i.e.: plaza type loading only, it may be possible to reinforce the bridge superstructure to carry these additional loads without reinforcement of the existing substructure elements.

b. Developer responsibility. The Selected Developer will be responsible for demonstrating to MassDOT that specific impacts of the proposed structure for the Air Rights Development are in no way detrimental to the continued maintenance, repair, use, and operation of the Turnpike, and do not impose unacceptable impacts to the MBTA's operations below associated with the Green line. Furthermore, any and all construction shall be wholly at the Selected Developer's risk and the Selected Developer shall indemnify MassDOT and MBTA against any and all claims or liabilities that arise related to such construction.

   In connection with the Air Rights Development, the Selected Developer will be responsible for the design and construction of any foundations, including footings or transfer structures, and for their impacts on the Turnpike and the MBTA

4. **Tunnel System**. By covering the air rights over the Turnpike, the existing (Prudential) tunnel will be extended potentially requiring modifications to existing tunnel systems including: lighting, life safety, air quality monitoring, fire detection, fire protection, etc. The Selected Developer will be obligated to incur any and all additional costs to develop Parcel 13 including, but not limited to, costs incurred by MassDOT for ventilation, lighting, and other life safety systems of the Turnpike and the Green line below the development. Their cost to install appropriate systems, in accordance with guidelines and/or regulations from the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO), as applicable, is the Selected Developer's responsibility. Preliminary studies of Turnpike coverage for Parcels, 12, 13 and 15 indicate that this portion of the Turnpike covered by the Air Rights Development will not require full mechanical ventilation. The Selected Developer will be fully responsible for verifying same independently. However a model of the ventilation through the tunnel has been prepared and maintained by Jacobs Engineering. (also reference median replacement project)

5. **Geotechnical**. A site specific geotechnical program has not been performed. The geotechnical conditions at the site are anticipated to be consistent with those found at adjacent Back Bay sites with the soils materials generally consisting of bedrock at 100 ± feet below grade overlaid by varying depths of clays, silt deposits and fill materials. A site specific geotechnical program will be required to be performed by the Selected Developer.

APPENDIX E: Summary of MBTA Design and Construction Processes

The MBTA is an organization focused on safely operating transit at least 20 hours a day (longer on weekends and major holidays/events), with the off-hours spent on maintenance. Our operating environment includes tracks, tunnels, busways, platforms, fare collection areas, staff areas, vertical transportation, stairs, ramps, bus waiting zones, and exterior paths of travel to a station entrance. Although critical to providing service,

MBTA construction tasks are secondary to day-to-day transit operations, even when the MBTA builds or reconstructs a station. This priority on operations adds a layer of complexity to review processes, construction methodology, and scheduling.

While a roughly 15 percent design is available to prospective bidders in connection with this RFP, it is not a definitive statement of the scope of the station improvements. Instead, the fully detailed scope of

construction will be established through comprehensive design development following the selection of an experienced developer and station designer both familiar with MBTA stations and the MBTA's internal review processes. It is anticipated that following the Selected Developer's designation in accordance with the RFP, the Station Design will not actually commence until the Selected Developer has completed its due diligence as to the Project as a whole, received MassDOT's approval of the Development Plan for the Air Rights Development, and initiated the MEPA / Article 80 applications for the Air Rights Development, all in accordance with the terms and conditions of the MassDOT Development Agreement.

1. **MBTA Oversight.** With respect to the design of the Station Improvements, the MBTA will assign a team of staff to direct the station design. With experience on several MBTA stations, this team will lend their expertise to the Selected Developer as PM/CM and the Station Designer to guide the project team effectively and efficiently. The Design and Construction Department will serve as the primary point of coordination, beginning with an assigned Project Manager supported by a Director. The Project Manager's Manual, which is included in the Bid Room, contains a concise outline of the support that the Design and Construction Department will provide. In addition, the following MBTA staff will be made available to the Selected Developer and Station Designer:

    a. **Contract Administration.** Contract Administration will assign a point person to direct the Station Improvements contractor procurement.

    b. **Technical disciplines.** Technical experts from Security, Communications, Power, Green Line Operations and Construction, Engineering and Maintenance, Maintenance of Way, Bus Operations, and Safety will be assigned.

    c. **Design and Construction.** Design and Construction will facilitate reviews with the State Building, Electrical and Plumbing inspectors.

    d. **Accessibility.** System-Wide Accessibility Staff will assist with reviews throughout the Project (revised 15%, 30%, 60%, 90%, 100% and construction phasing/schedule/methodology) to ensuring the Station Improvements design and construction meet MBTA's expectations, as well as of the project in entirety with focuses on public spaces and the public rights of way.

    e. **Inspectors.** During Construction, one or more Construction Inspectors will be assigned to the Project , directly supervised by a Resident Engineer, to ensure quality and facilitate and coordinate key aspects of the Project as outlined in the Resident Engineer's Manual;

    f. **Real Estate.** Staff from Real Estate will be available for regular consultation.

g. **Wayfinding.** MBTA Wayfinding will collaborate with designers to locate and message signs, design all MBTA signs and deliver the art for production and installation throughout the construction period.

MBTA's Design and Construction Department will regularly convene review meetings with the Selected Developer's team including the Station Designer on technical themes (structures, power, fire systems, etc.) while also staging large-group, interdepartmental reviews at key design milestones (15, 30, 60, 90, and 100 percent, as well as construction phasing/schedule/methodology). As with any complex project, regular meetings and outreach to all MBTA stakeholders will be essential to this Project's success.

Specifically, Design and Construction will require the Selected Developer, Station Designer and/or the Station Contractor to prepare and submit for approval a project management plan, a construction management plan, and a quality assurance plan, among others. These Project Controls procedures are ones followed for all MBTA projects and will be followed for this one as well. Monthly review of cost-loaded schedules will be required for tracking design and construction progress and be linked to invoicing. MBTA's practices applied to the design process will include risk analysis, constructability review, detailed phasing of work to maintain operations, cost review, and independent structural review. As the MBTA is funded by public money, there will be detailed reporting and auditing requirements for file keeping and financial management.

Further, station elements addressing accessibility are a matter of policy for the MBTA, and a 2006 agreement with plaintiffs represented by the Boston Center for Independent Living ("BCIL") guides that policy. Requirements can exceed applicable code. MBTA's System-Wide Accessibility department is the day-to-day oversight and guidance on accessibility, and the BCIL plaintiffs remain involved in periodic project reviews.

2. **Coordination with MBTA Operations.** Construction activities will likely need to be planned around maintaining safe operations of the existing station, and maintaining the safety of all personnel – CM/PM, designers, contractors and MBTA staff – at all times. All personnel involved in compensated work inside of fare collection must attend eight hours of Right of Way safety training and maintain a current certification with bi-annual, four-hour updates. Phasing scenarios will likely involve strategies to maintain space for operations and passengers within the station while under construction, such as closing a half platform at a time, or creating small work zones isolated by physical barriers to ensure no impact to customers and track. To provide Service Agents, Diversion Busing, Paratransit, and Notifications for customers during any impact to service requires a high level of advanced planning and coordination between the Selected Developer's team and the MBTA with assistance and direction from its Public Relations Department. Flagging will be an important component of the MBTA presence on the work site, as will work performed by MBTA staff for power needs, construction inspection, and other on-site MBTA work.

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Request for Proposals

Air Rights Parcels 13 & Hynes Convention Center Station

Appendix F: Questions and Answers

October 17, 2014

Question 1: *Does Amtrak or CSX need to approve the project? [Tony Monterio, Tishman]*

> **Answer 1:** OREAD does not anticipate that any portion of the Parcel 13 Air Rights development will be located over the railroad tracks. It is possible, however, that a small section of the building or deck foundations will be located in an area between the railroad and the Massachusetts Turnpike. MassDOT Rail Division, MBTA, and possibly other rail entities may, therefore, review the proposed development with respect to impacts on the railroad tracks, particularly with respect to construction period impacts on operations.

Question 2: *Is there a traffic study? [Stefanie Greenfield, Cambridge Seven Associates]*

> **Answer 2:** No traffic study has been conducted by OREAD, MassDOT, or the MBTA with respect to the proposed Parcel 13 and Hynes Station project. Pursuant to Section VI.C.4.b.vi of the RFP, Proposers are required to provide a description of the traffic and access aspects of their proposed projects in their Proposals. However, OREAD does not expect Proposers to conduct traffic studies in support of their Proposals. Pursuant to Section IV of the RFP, it will be the responsibility of the selected Developer to conduct necessary traffic analyses as part of its state and municipal permitting processes, based on a proposed and accepted development program and design.

Question 3: *How did you determine the bus stop location vs. a curb cut for bus? [Stefanie Greenfield, Cambridge Seven Associates]*

> **Answer 3:** MBTA in general prefers that the bus stops be located at the beginning of the Massachusetts Avenue side of the parcel and in close proximity to the new Hynes Station Green Line entrances. The exact location and design of the bus stops will be determined during the Station Improvements design process, with input from the selected Developer, the MBTA, and the City of Boston. With respect to a bus bay / turnout (not a "curb cut"), MBTA may be open to such an approach if it is determined to be beneficial in conjunction with a comprehensive streetscape plan. Prospective Proposers should review the draft MBTA "Bus Stop Planning & Design Guidelines" which are now available in the electronic Bid Room.

Question 4: *Has the BRA endorsed the heights shown in the study? [Gary Johnson, Cambridge Seven Associates]*

Answer 4: No. As described in Section II.B, "Air Rights Development," on p. 12 of the RFP, the various building heights used in the Feasibility Study were selected by OREAD in order to test the feasibility of potential building masses. The building heights shown in the Feasibility Study do not represent heights proposed or endorsed by MassDOT, the MBTA, or the BRA.

Proposers should carefully consider all relevant site conditions, including without limitation structural conditions, financial feasibility, existing applicable density regulations, and the urban design context of Parcel 13, when proposing building masses and heights. It will be the responsibility of the selected Developer to seek and obtain all necessary permits and approvals for proposed development, including zoning variances or changes, if any. That approval process will include an Article 80 process, which will include significant public input.

Question 5: *Are the Station Architect info (that is attached in a sealed package) included in the 40 page total page count? [Michael Epp, Kleinfelder]*

Answer 5: The following changes are made to the requirements of Section VI.B.3 and Section VI.C of the RFP:

Proposers must provide the station designer qualifications in two formats:

a. Sealed station designer qualifications submission package. Proposers must provide complete station designer qualifications with all information required in Section VI.C.2.c of the RFP in a separate, sealed envelope. This sealed, detailed description of the station designer's qualifications must be no more than 40 pages in length itself, but will not be counted in the 40-page limit for Component I of the Proposal. It will be used by the MBTA in Round 1 of the selection process to pre-qualify teams and must be provided separately so that stations designers can be evaluated and pre-qualified prior to reviewing the remainder of the Proposal. It also will be used in Round 2 of the selection process when evaluating the overall qualifications of the development teams.

b. Component I. Proposers also must include the station designer in the description of the development team members in Component I of the Proposal, as described in Section VI.C.2.c of the RFP. This description of the station designer qualifications should be summary nature, and will be included in the page limit for Component I of the Proposal. This information must be included because Component I will be subsequently distributed to the BRA, CAC, and general public as single package.

MassDOT – MBTA

Request for Proposals

Air Rights Parcels 13 & Hynes Convention Center Station

Appendix G: Pre-Submission Meeting Attendance

October 17, 2014

The following individuals attended the Pre-Submission Meeting

Members of the public:

Robert Burnham, Kleinfelder
Michael Epp, Kleinfelder
Tom Erickson, Tishman
Scott Faber, Lincoln Property Company
Stefanie Greenfield, Cambridge Seven Associates
Gary Johnson, Cambridge Seven Associates
Curtis Kemeny, Boston Residential Group
Tony Monterio, Tishman
Ethan Robert, Lincoln Property Company
Won Yeup Seok, Cambridge Seven Associates

MassDOT:

William Tuttle, Office of Real Estate and Asset Development

MBTA:

Joe Cheever
Mary Runkel
Elizabeth Tetreault
Gretchen Von Grossmann

Boston Redevelopment Authority:

Jonathan Greeley

OREAD Consultants:

Andrew Boyd, Parsons Brinckerhoff
Misha Daha, Robinson & Cole, LLP
Drew Leff, Stantec
Carla Moynihan, Robinson & Cole LLP
Richard Reynolds, The Reynolds Group, Inc.
Nicholas Torello, Parsons Brinckerhoff